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Report of the technical review of the first biennial report of Norway

Developed country Parties are requested, in accordance with decision 2/CP.17, to submit their first biennial report to the secretariat by 1 January 2014. This report presents the results of the technical review of the first biennial report of Norway conducted by an expert review team in accordance with the "Guidelines for the technical review of information reported under the Convention related to greenhouse gas inventories, biennial reports and national communications by Parties included in Annex I to the Convention".

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I. Introduction and summary

A. Introduction

1. For Norway, the Convention entered into force on 21 March 1994. Under the Convention, Norway made a commitment to reduce its greenhouse gas (GHG) emissions by 30 per cent by 2020 below the 1990 level.

2. This report covers the in-country technical review of the first biennial report (BR1) of Norway, coordinated by the secretariat, in accordance with the "Guidelines for the technical review of information reported under the Convention related to greenhouse gas inventories, biennial reports and national communications by Parties included in Annex I to the Convention" (decision 23/CP.19).

3. The review took place from 6 to 10 October 2014 in Oslo, Norway, and was conducted by the following team of nominated experts from the UNFCCC roster of experts: Ms. Sarah Baashan (Saudi Arabia), Mr. Gilles Croquette (France), Mr. Maosheng Duan (China) and Mr. Erik Rasmussen (Denmark). Mr. Duan and Mr. Rasmussen were the lead reviewers. The review was coordinated by Mr. Bernd Hackmann (secretariat).

4. During the review, the expert review team (ERT) reviewed each section of the BR1.

5. In accordance with decision 23/CP.19, a draft version of this report was communicated to the Government of Norway, which provided comments that were considered and incorporated, as appropriate, into this final version of the report.

B. Summary

6. The ERT conducted a technical review of the information reported in the BR1 of Norway according to the "UNFCCC biennial reporting guidelines for developed country Parties" (hereinafter referred to as the UNFCCC reporting guidelines on BRs).

7. During the review, Norway provided further relevant information on its quantified economy-wide emission reduction target, including associated conditions and assumptions, and on its provision of financial, technological and capacity-building support to developing country Parties.

1. Completeness and transparency of reporting

8. Gaps and issues related to the reported information identified by the ERT are presented in table 1 below.

2. Timeliness

9. The BR1, together with the common tabular format (CTF) tables, were submitted on 10 March 2014, after the deadline of 1 January 2014 mandated by decision 2/CP.17. Norway informed the secretariat about its difficulties with the timeliness of its BR1 and CTF tables on 3 March 2014 in accordance with decision 23/CP.19, annex, paragraph 65.

[1] The biennial report submission comprises the text of the report and the common tabular format (CTF) tables. Both the text and the CTF tables have been subject to the technical review.

The ERT noted with great concern the delay in the submission of the BR1 and strongly recommends that Norway submit its next biennial report (BR) on time.

10. Norway submitted a revised version of its BR1 on 2 July 2014 and a revised version of its CTF tables on 24 October 2014. The ERT took note of the revised versions of the BR1 and CTF tables.

3. Adherence to the reporting guidelines

11. The information reported by Norway in its BR1 is mostly in adherence with the UNFCCC reporting guidelines on BRs as per decision 2/CP.17 (see table 1).

Table 1

Summary of completeness and transparency issues of reported information in the first biennial report of Norway

Sections of the biennial report	*Completeness*	*Transparency*	*Reference to paragraphs*
Greenhouse gas emissions and trends	Complete	Transparent	
Assumptions, conditions and methodologies related to the attainment of the quantified economy-wide emission reduction target	Complete	Mostly transparent	24
Progress in achievement of targets	Complete	Transparent	
Projections	Complete	Transparent	
Provision of support to developing country Parties	Mostly complete	Partially transparent	53, 54, 56, 58, 67, 69

A list of recommendations pertaining to the completeness and transparency issues identified in this table is included in the chapter on conclusions.

II. Technical review of the reported information

A. All greenhouse gas emissions and removals related to the quantified economy-wide emission reduction target

12. Norway has provided a summary of information on GHG emission trends for the period 1990–2011 in annex I of its NC6. The BR1, which is annex 5 of the NC6, refers to this annex I, in order to avoid duplication. The information on GHG emission trends is consistent with the 2013 national GHG inventory submission. During the review, the ERT took note of the 2014 annual submission. The relevant information therein is reflected in this report.

13. Total GHG emissions[1] excluding emissions and removals from land use, land-use change and forestry (LULUCF) increased by 4.6 per cent from 50,409.35 kt CO_2 eq in 1990 to 52,733.24 kt CO_2 eq in 2012, whereas total GHG emissions including net emissions or removals from LULUCF decreased by 35.3 per cent from 40,262.41 kt CO_2 eq in 1990 to 26,055.57 kt CO_2 eq in 2012.

[1] In this report, the term "total GHG emissions" refers to the aggregated national GHG emissions expressed in terms of carbon dioxide equivalent excluding land use, land-use change and forestry, unless otherwise specified.

14. Emission increases were driven by growth in gross domestic product (GDP) and population, mainly owing to increasing emissions from energy industries (in particular, oil and gas extraction) by 102.9 per cent between 1990 and 2012 and from transport (in particular, road transport, civil aviation and coastal traffic/fishing) by 36.6 per cent between 1990 and 2012.

15. Further information on the review of emission and emission trends is provided in chapter II.A of the report of the technical review of the sixth national communication (IDR/NC 6).

B. Assumptions, conditions and methodologies related to the attainment of the quantified economy-wide emission reduction target

16. In its BR1 and CTF table 2, Norway reported a description of its quantified economy-wide emission reduction target, referred to henceforth as the target, including associated conditions and assumptions.

17. Under the Convention, Norway made a commitment to reduce its GHG emissions by 30.0 per cent by 2020 compared to the 1990 level. Under the second commitment period of the Kyoto Protocol, Norway is committed to an emission reduction that corresponds to average annual emissions over the period 2013–2020 at 84 per cent of its 1990 emission level. Norway's target under the Convention is consistent with the commitment under the second commitment period of the Kyoto Protocol and therefore Norway is planning to operationalize its target under the Convention through the quantified emission limitation or reduction commitment for 2013–2020 under the Kyoto Protocol.

18. The target under the Convention defines 1990 as the base year for all gases (carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), prefluorocarbons (PFCs) and sulphur hexafluoride (SF_6)), with the base year for nitrogen trifluoride (NF_3) not yet decided. The following sectors are covered: energy, transport, industrial processes, agriculture, LULUCF and waste. For all included gases, the global warming potential (GWP) values from the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report are used. Norway's intention is to apply the Kyoto Protocol second commitment period accounting rules, including an activity-based approach for LULUCF, to its target under the Convention.

19. Norway further reported that all currently available mechanisms under the Convention may be used to meet its target under the Convention and that future mechanisms will be considered once they have been agreed by the Conference of the Parties (COP), and or if applicable, by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol. Market-based mechanisms that are not under the Convention will not be used for meeting Norway's target under the Convention nor under the Kyoto Protocol.

20. For 2013–2020, Norway will calculate the contribution of LULUCF according to the activity-based approach using Kyoto Protocol rules for activities under Article 3, paragraph 3, of the Kyoto Protocol (afforestation, reforestation and deforestation), and under Article 3, paragraph 4, of the Kyoto Protocol (forest management). However, Norway reported that it has not yet been decided whether activities other than forest management under Article 3, paragraph 4, of the Kyoto Protocol will be used.

21. The ERT noted that in its NC 6, Norway also reported on a conditional target under the Convention to strengthen its initial pledge to reduce its GHG emissions by 30.0 per cent by 2020 to a 40.0 per cent emission reduction by 2020 compared with the level in 1990, as part of a global and comprehensive agreement for the period beyond 2012, whereby the

countries with the largest emissions agree to specific emission commitments. This conditional target is consistent with information contained in document FCCC/SB/2011/INF.1/Rev.1. The ERT encourages Norway to enhance the transparency of its reporting by providing more detailed information on its conditional target under the Convention in its next BR.

22. The ERT noted that Norway reported in its BR1 and CTF tables 2(d) and 4 that Norway will calculate the contribution from LULUCF under its target under the Convention according to the activity-based approach using Kyoto Protocol rules, whereas in the process of clarifying the developed country Parties' quantified economy-wide emission reduction targets contained in document FCCC/SB/2011/INF.1/Rev.1, Norway used a land-based approach for calculating the contribution of LULUCF under the Convention.

23. During the review, Norway provided additional information clarifying that its target under the Convention is consistent with its commitment under the second commitment period of the Kyoto Protocol. Norway further elaborated on how it plans to operationalize its target under the Convention through its quantified emission limitation or reduction commitment (QELRC) for 2013–2020 under the Kyoto Protocol. The consistency between these two targets is also described in Norway's submission of 8 May 2012 to the Ad Hoc Working Group on Further Commitments for Parties included in Annex I to the Convention (Annex I Parties) under the Kyoto Protocol and Norway's presentation to the same group on 12 May 2012.[7] The ERT noted that this information was also included in the resubmission of the CTF tables on 24 October 2014.

24. The ERT recommends that Norway enhance the transparency of its reporting by providing a detailed description of its target under the Convention, including associated conditions and assumptions. The ERT also would find it useful if Norway included a transparent description clarifying that the commitment under the second commitment period of the Kyoto Protocol is consistent with Norway's target under the Convention.

C. Progress made towards the achievement of the quantified economy-wide emission reduction target

25. In its BR1 and CTF tables 3 and 4, Norway reported information on its mitigation actions implemented and planned since its fifth national communication (NC5) to achieve its target.[8] Norway also reported on the use of units from market-based mechanisms and LULUCF to achieve its target.

26. The ERT reviewed the reported information and provided its assessment of progress made towards achieving the target. The target for Norway under the Kyoto Protocol first commitment period (2008–2012) is to limit its emissions to 50,115.36 kt carbon dioxide equivalent (CO_2 eq) on average per year. Between 2008 and 2012, average annual emissions excluding the LULUCF sector were estimated to be 53,321.54 kt CO_2 eq. To

[7] FCCC/AWGLCA/2012/MISC.1.

[8] Available at http://unfccc.int/files/meetings/ad_hoc_working_groups/kp/application/pdf/awgkp_norway_ppt.pdf.

[9] The quantified economy-wide emission reduction target by Norway is expressed using the GWP values from the Fourth Assessment Report of the IPCC, while emission levels are assessed using the values from the IPCC Second Assessment Report, as per the 'Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual greenhouse gas inventories'.

complete the gap of 5,206.18 kt CO_2 eq per year. Norway is planning to use credits from the Kyoto Protocol mechanisms.

27. In its CTF tables 4 and 4(b), Norway reported the number of units transferred to its retirement account each year. These figures correspond to the units surrendered by the installations in Norway that are covered by the European Union Emissions Trading System (EU ETS), including the units that are attributed to or sold by Norway (see also table 3 below). Norway is expecting to obtain an average 4,100 kt CO_2 eq per year from the international transfers within the EU ETS. The ERT noted that this amount is higher than that needed for the attainment of the target.

28. The ERT further noted that Norway is in a position to meet its Kyoto Protocol commitment for the first commitment period from 2008 to 2012, without having to purchase additional Kyoto Protocol units, and that this progress could form a stepping stone for further emission reductions in the period until 2020.

29. For the second commitment period of the Kyoto Protocol, Norway's commitment is to limit average annual emissions to 84.0 per cent of 1990 emissions. Norway estimates in its NC6 that the level of 1990 emissions is about 51,600 kt CO_2 eq, when taking into account the GHG inventory figures of 2011 and the new GWP values consistent with the new reporting guidelines under the Convention.[b] Norway's assigned amount units would then correspond to an annual average of about 43,300 kt CO_2 eq.

30. The ERT noted the projected total GHG emissions in 2020 to reach 54,400 kt CO_2 eq. Since Norway's commitment under the second commitment period of the Kyoto Protocol is consistent with Norway's target under the Convention and as its target under the Convention is operationalized through the QELRC for 2013–2020 under the Kyoto Protocol with the Kyoto Protocol's accounting rules, the ERT further noted that Norway may eventually have to implement additional domestic efforts, to use Kyoto Protocol mechanisms or to account for LULUCF activities to reach its targets under the Convention and the second commitment period of the Kyoto Protocol.

1. Mitigation actions and their effects

31. Norway has provided in its BR1 and CTF table 3 comprehensive and well-organized information on its package of mitigation actions introduced or changed since the last reporting of PaMs in its NC5 to achieve its target. The BR1 provided information in tabular format on mitigation actions, with information on coverage regarding sectors and gases. A detailed review of the reported information is provided in chapter II.B of the IDR NC6.

32. Norway reported on its national PaMs mainly through CTF table 3 and provided cross references to more detailed information on the national PaMs contained in its NC6. The information provided in CTF table 3 refers to PaMs that have been implemented or are planned to be implemented since the NC5. These PaMs are consistent with the PaMs reported and described in section 4 of Norway's NC6, while the NC6 provides more detailed information on the complete portfolio of Norway's PaMs.

33. In its BR1, Norway reported that the total effect of adopted and implemented PaMs is estimated to be in the range 12,600–15,200 kt CO_2 eq in 2010, in the range 17,100–20,100 kt CO_2 eq in 2020 and in the range 17,800–20,500 kt CO_2 eq in 2030. According to the information reported in the NC6, PaMs implemented in the energy industries sector, related to petroleum activities, are estimated to deliver the largest emission reductions, followed by the effect of PaMs implemented in the industry and transport sectors. For

[b] "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention. Part I: UNFCCC reporting guidelines on annual inventories".

PaMs included in CTF table 3, Norway reports the total expected mitigation effect in 2020 to be in the range 1 070–1 120 kt CO_2 eq. The most effective PaMs and drivers behind GHG emission reductions are described in chapter II.E of the IDR/NC 6.

34. The key framework for Norway's climate policy is founded on the objective of the Convention and the Kyoto Protocol and the scientific understanding of the greenhouse effect set out in the IPCC reports. The ERT noted that the package of PaMs implemented, adopted and planned by Norway, in order to fulfil its commitments under the Convention is, to a large extent, based on economic and fiscal instruments (taxes and emissions trading) that put a price on emissions, and also that the combination of the comprehensive coverage of sectors and the considerable level of taxation in Norway is unique in the world.

35. Table 2 provides a concise summary of the key mitigation actions implemented or changed by Norway since NC 5 in order to achieve its target under the Convention. A detailed compilation of key mitigation actions is provided in chapter II.B of the IDR/NC 6.

Table 2

Summary of information on mitigation actions reported by Norway

Sector (PaMs)	*List of key policies and measures*	*Estimate of mitigation impact (1000 kt CO_2 eq) for 2020–2030*
Policy framework and cross-sectoral measures		
	CO_2 tax (except CO_2 tax offshore)[a]	NE/NE
	Emissions trading (2013–2020)[a, b]	NE/NE
	CO_2 tax on domestic aviation	NE/NE
	CO_2 tax on natural gas and liquefied petroleum gas	NE
	CO_2 tax on fishing and catching in inshore waters	NE/NE
Energy	CO_2 tax offshore[a, c]	NE/NE
Energy supply	Base tax on mineral oils[a]	NE/NE
	Norwegian energy fund, Enova[a]	0.900/NE[d]
Residential and commercial sectors	Energy requirement in the building code[a]	IE/IE
Transport	CO_2-dependent registration tax for new passenger cars[a]	NE/NE
	EU emission standards for passenger cars[a]	NE/NE
	Increase the requirement of biofuels in road transport (from 2.5 per cent to 3.5 per cent in 2010)[a]	0.100/0.100
Industrial sectors	N_2O reduction, production of nitric acid[a]	0.070/0.070

Note: The greenhouse gas reduction estimates given for some measures are estimated reductions in carbon dioxide or carbon dioxide equivalent emissions of the new policies and measures (PaMs) implemented or existing PaMs changed since the fifth national communication as reported in Norway's first biennial report. A detailed compilation of key mitigation actions is provided in chapter II.B of the report of the technical review of the sixth national communication, including the effects of existing PaMs.

Abbreviations: EU = European Union, IE = included elsewhere, NE = not estimated.

[a] The PaM is included in the "with measures" projection.

[b] The effect of the European Union Emissions Trading System on the industry is included under cross-sectoral PaMs in Norway's sixth national communication.

[c] The total effect of the sum of carbon dioxide tax and the European Union Emissions Trading System is reported in Norway's sixth national communication.

[d] Information from Norway's sixth national communication.

[e] The calculations do not cover 2030. For this reporting, the effect in 2030 is set equal to the effect of 2020.

36. In its BR1, Norway provided information that there are no changes in its domestic institutional arrangements, including institutional, legal, administrative and procedural arrangements used for domestic compliance, monitoring, reporting, archiving of information and evaluation of the progress towards its target since Norway reported this information in its NC5 and as described in its NC6.

37. Norway provided, to the extent possible, detailed information on the assessment of the economic and social consequences of response measures.

2. Estimates of emission reductions and removals and the use of units from the market-based mechanisms and land use, land-use change and forestry

38. Norway reported in its BR1 and CTF table 4 on its plans to use market-based mechanisms under the Convention and on the contribution from LULUCF to achieve its target.

39. In its BR1, Norway provided information stating that the commitment under the second commitment period of the Kyoto Protocol is consistent with the Norwegian target under the Convention of a 30–0 per cent reduction of emissions by 2020 compared with 1990, and further clarified that its 2020 target under the Convention is operationalized through QELRC for 2013–2020 under the Kyoto Protocol, with the Kyoto Protocol accounting rules applying.

40. Norway reported in its BR1 and CTF tables 4 and 4(a)(I) that the contributions from the LULUCF sector in Norway towards its target under the Convention will be based on the accounting approach under the Kyoto Protocol, but it has not yet decided whether activities other than forest management under Article 3, paragraph 4, of the Kyoto Protocol will be used.

41. Norway reported in its BR1 and CTF tables 4 and 4(b) on its plans to use market-based mechanisms under the Convention. The ERT noted that reported units from market-based mechanisms correspond to the units surrendered by the installations in Norway that are covered by the EU ETS.

42. Table 3 illustrates how Norway reported on the use of units from market-based mechanisms and LULUCF to achieve its target.

Table 3

Summary information on the use of units from market-based mechanisms and land use, land-use change and forestry as part of the reporting on the progress made towards achievement of the target by Norway

Year	Emissions excluding LULUCF (kt CO_2 eq)[a]	LULUCF emissions/removals (kt CO_2 eq)[a]	Emissions including LULUCF (kt CO_2 eq)	Use of units from the market-based mechanisms[b] (kt CO_2 eq)
Base year	50 409.35	NA	50 409.35	NA
2010	54 346.98	0	54 346.98	19 217.00
2011	53 294.03	0	53 294.03	19 333.29
2012	52 733.24	0	52 733.24	19 132.76

Abbreviations: LULUCF = land use, land-use change and forestry, NA = not applicable.

[a] Emissions reported in Norway's 2014 annual greenhouse gas inventory.

[b] Norway reports in its first biennial report and its common tabular format table 4 that removal units issued by Norway will not be used to meet the commitment under Article 3, paragraph 1, of the Kyoto Protocol.

Units from market-based mechanisms correspond to the units surrendered by the installations in Norway that are covered by the European Union Emissions Trading System.

3. Projections

33. Norway has provided in its BR1 and CTF tables 5 and 6 comprehensive and well-organized information on its updated projections for 2020 and 2030. A detailed review of the reported information is provided in chapter II.C of the IDR/NC 6.

34. The information provided in the BR1 regarding the projections until 2020 and 2030, as well as the models and methodologies used to prepare the projections, are consistent with the information provided in Norway's NC 6.

35. The ERT noted information reported by Norway on projected emission trends by 2020 and 2030 in the "with measures" scenario. Overall, Norway's reported projections of total GHG emissions for 2020 show a slightly increasing emission trend. Total emissions in 2020 are projected to reach 54,400 kt CO_2 eq, a level that is 7.9 per cent above the 1990 level. Reported projections of total GHG emissions for 2030 show a decreasing trend between 2020 and 2030, with total emissions in 2030 expected to be at a level that is 3.6 per cent above the 1990 level.

36. In its BR1, Norway did not provide information on eventual changes to the projection models and methodology compared to the NC 5. However, during the review, Norway provided additional information clarifying that there was no specific change in the projection models and methodology used since its most recent national communication (NC 6). The ERT encourages Norway to include information on changes in projection methodologies and models from the previous NC, if any, or to indicate if there is no change.

D. Provision of financial, technological and capacity-building support to developing country Parties

1. Provision of financial support to developing country Parties

37. In its BR1 and CTF table 7, Norway reported information on the provision of financial, technological and capacity-building support required under the Convention. The information provided is mostly complete and mostly transparent. A comprehensive review of the reported information is provided in chapter II.D.1 of the IDR/NC 6.

38. In its BR1, Norway reported that the main priorities for Norwegian climate finance in recent years have been reducing emissions from deforestation and forest degradation, promoting renewable energy, energy conservation and energy efficiency. It also considered adaptation to climate change to be another priority, with particular focus on food security and disaster risk reduction.

39. During the review, Norway provided updated information on the financial support it has provided to developing countries to mitigate GHG emissions and to adapt to the adverse effects of climate change for the years 2011 and 2012. The ERT welcomed this information.

40. In its updated information, Norway reported that in 2011, it contributed climate-specific financial support to developing countries of around USD 207.1 million through multilateral channels and around USD 350.3 million through bilateral, regional and other channels. In 2012, Norway contributed climate-specific financial support to developing countries of around USD 337.7 million through multilateral channels and around USD 513.2 million through bilateral, regional and other channels. The ERT noted that the share of climate-specific support was around 12 per cent of the total official development assistance (ODA) in 2011 and around 18 per cent of the total ODA in 2012.

51. In its BR1, Norway provided details on what "new and additional" financial resources it has provided and clarified how these resources are "new and additional". Norway explained that its funding is considered to be "new and additional" because it was drawn from the growing aid programme and did not divert funds from existing development priorities or programmes. Table 4 includes some of the information reported by Norway on its provision of financial report.

52. Norway reported further in its BR1 that in 2006, the share of bilateral climate finance in the overall ODA budget was around 5 per cent, which by 2012 had increased to 18 per cent. It also stated that the budget for climate change mitigation and adaptation assistance has increased strongly over the past seven years. The ERT commends Norway for this transparent definition of "new and additional" financial resources and its substantive increase of financial support provided to developing country Parties to mitigate GHG emissions and to adapt to the adverse effects of climate change.

53. The BR1 does not include information required by the UNFCCC reporting guidelines on BRs on how Norway seeks to ensure that the resources it provides effectively address the needs of Parties not included in Annex I to the Convention (non-Annex I Parties) with regard to climate change adaptation and mitigation. The ERT recommends that Norway provide this information in its next BR.

54. In its BR1, Norway did not report on financial support it has provided, committed and/or pledged for the purpose of assisting non-Annex I Parties to adapt to any economic and social consequences of response measures. During the review, Norway provided additional information indicating that it did not have access to information on the topic or any related demand, and referred to lack of methodology to undertake related activities to quantify the social and economic impacts of response measures. The ERT therefore recommends that Norway include this information in its next BR.

55. The ERT noted that in reporting information in CTF tables 7, 7(a) and 7(b) for 2011 and 2012, the UNFCCC reporting guidelines on BRs were not followed closely, resulting in a number of issues:

(a) Norway did not explain in its BR1 how it defines funds as being climate specific. During the review, Norway provided additional information, clarifying that climate-specific funds are contributions marked with the policy markers (based on Organisation for Economic Co-operation and Development (OECD)/Development Assistance Committee statistics) for climate change mitigation, climate change adaptation or both (labelled cross-cutting in CTF table 7(b)) and referred to corresponding section 7.4.1 of its NC6. Norway also elaborated that the figures applied under core support to multilateral channels refer to un-earmarked support to international organization, regardless of its climate change relevance;

(b) Norway did not specify or provide additional explanations for the information reported under the category other;

(c) Norway did not report the currency value in USD, and has only indicated the currency exchange rates. Norway presented a revised table during the review that contained USD values for all tables;

(d) Norway reported several empty cells without further clarification or the provision of explanatory footnotes.

56. The ERT recommends that Norway follow the UNFCCC reporting guidelines on BRs more closely and provide transparent and accurate textual and tabular information, also in the form of footnotes, on its financial support to developing country Parties, including following the CTF table template in its BR.

57. The ERT noted that Norway has provided negative values in CTF tables 7, 7(a) and 7(b). During the review, Norway provided additional information explaining that the negative values indicate reimbursements of unused funds or sales from previous years' investments. Norway also clarified that these negative values will be subtracted from the following year's reported funds or the next report, depending on the time frame. The ERT encourages Norway to enhance the transparency on its reported activities in the CTF tables by providing transparent explanations, also in the form of footnotes, for using negative values.

Table 4

Summary of information on provision of financial support in 2011–2012

(Millions of United States dollars)

	Years of disbursement	
Allocation channel and public financial support	*2011*	*2012*
Official development assistance	4 756	4 783
Climate-specific contributions through multilateral channels, including:	207.1	337.7
Contribution to the Global Environment Facility	18.97	18.29
Contributions through United Nations Bodies	50.6	75.2
Contributions to the Green Climate Fund		1.04
Climate-specific contributions through bilateral, regional and other channels	350.3	513.2

Source: Updated information provided by Norway during the review.

Norway has so far contributed USD 1.037 million to the administrative budget of the Green Climate Fund, which covers the entire reporting period 2010–2012.

2. Approach used to track support provided

58. In its BR1 Norway reported that climate change finance is tracked by the Norwegian Agency for Development Cooperation (Norad), using Norwegian Aid Statistics. Norway, however, did not provide a detailed description of the tracking methodology, assumptions or indicators used. The ERT therefore recommends that Norway enhance the transparency of its reporting by providing the missing information in its next BR.

59. In its BR1, Norway has indicated the difficulty in distinguishing funds dedicated to adaptation from mitigation, noting that these funds are not earmarked and would sometimes be marked as cross-cutting activities.

60. Furthermore, Norway has reported that all funds in CTF table 7(a) are specified as provided, which means that the amounts are disbursed during the year reported for. Norway indicated its utilization of OECD markers and explained that these markers indicate relevance only with regard to distinguishing between adaptation and mitigation. Norway reported few projects as stand-alone adaptation, while the majority of projects were reported as cross-cutting between mitigation and adaptation. During the review, Norway provided additional information explaining its capacity-building exercise, for its experts, in using adaptation markers. The ERT encourages Norway to provide more transparent information with regard to distinguishing mitigation from adaptation support and enhancing the transparency when reporting this information in its next BR.

61. With regard to private financial flows and the differentiation between public and private financial flows, Norway reported in its BR1 difficulties with tracking private climate finance. The ERT noted Norway's efforts to better understand and track private

finance through the OECD research collaborative on tracking private climate finance, which aims to fill the knowledge gaps both in the overall architecture and in the measurement of private climate finance flows to, between and in developing countries, as well as on determining how developed country public interventions mobilize private finance.

62. During the review, Norway indicated that the anticipated results of this initiative might, in the future, help to track and attribute finance flows mobilized by public investments. In conjunction with its BR/NC6, Norway provided more information on this area on a domestic level and clarified that while there are no specific regulations on how to promote the scaling up of private investments, specific public–private projects provide incentives to the private sector to engage more actively. The ERT encourages Norway to provide textual information-specific PaMs that promote the scaling up of private investment in mitigation and adaptation activities in developing country Parties in its next BR.

3. Technology development and transfer

63. In its BR1 and CTF table 8, Norway has provided information on activities related to the transfer of technology to developing countries, including an indication of public and private sectors. Norway also referred to relevant references in section 7.4 of its NC6.

64. Norway reports examples of its activities in financing access to technologies that include programmes which are focused in the areas of renewable energy, especially hydropower, and improved utilization of petroleum resources. Norway has also pointed to its other partnership with other Parties, including developing country Parties, in projects pertaining to CO_2 capture and storage (CCS).

65. With regard to its activities for technology support to developing countries, Norway stated in its BR that Norwegian ODA considers transfer of technology and know-how in order to promote development, availability and efficiency of energy, in addition to other technology transfer and capacity-building efforts, to be important.

66. In its BR1, Norway has reported on activities that are directed towards Annex I Parties and non-Annex I Parties, for example, its participation in the International Centre for Hydropower and membership in the Clean Energy Ministerial. Norway alluded to activities that support the technology needs of other developing countries through some of the reported programmes; however, it did not clearly specify measures and activities related to technology transfer to developing country Parties. The ERT encourages Norway to follow the UNFCCC reporting guidelines on BRs more closely and to provide more relevant information, specifying measures and activities related to technology transfer to developing country Parties.

67. The ERT noted that although Norway has indicated in its BR1 its membership in many institutions and initiatives that focus on exchange of research results and transfer of technology as a main target, such as the International Energy Agency, in addition to its bilateral assistance projects, Norway has not specified measures that will contribute to the technology benefits of non-Annex I Parties and for the support of the development and enhancement of their endogenous capacities and technologies. The ERT recommends that Norway provide this information as required and transparently specify this information in its next BR in textual and tabular formats. The ERT also encourages Norway to report in this context on associated success and failure stories.

4. Capacity-building

68. In its BR1 and CTF table 9, Norway has provided information on how it has provided capacity-building support for mitigation and adaptation activities. Norway

referred to relevant information on capacity-building measures in section 7.5 of its NC 6. During the review, Norway provided additional information stating that its approach to capacity-building is an integral part of its relevant activity supported by the Norwegian Ministry of Foreign Affairs and Norad.

60. As a focus area for Norway, it reported its activities related to reducing emissions from deforestation and forest degradation in developing countries and to the use of renewable energy. The Party also provided examples for activities on CCS. However, the ERT noted that for most of the projects, the BR1 would benefit from more transparent information specifying practical actions that Norway has taken through these projects to provide capacity-building support that responds to the existing and emerging capacity-building needs identified by non-Annex I Parties. The ERT recommends that Norway provide transparent information, to the extent possible, on how it has provided capacity-building support that responds to the existing and emerging capacity-building needs identified by non-Annex I Parties in the areas of mitigation, adaptation and technology development and transfer.

III. Conclusions

70. The ERT conducted a technical review of the information reported in the BR1 and CTF tables of Norway in accordance with the UNFCCC reporting guidelines on BRs. The ERT concludes that the BR1 and CTF tables provide a good overview of information on emissions and removals related to the quantified economy-wide emission reduction target, a description of the target, progress made by Norway to achieve its target and provision of support to developing country Parties.

71. The ERT noted that the reporting of Norway on financial support to developing country Parties in its BR1 and CTF tables might benefit from enhancing the completeness and transparency of information, in particular, when using the CTF tables, which could be supported by providing additional explanations, for example, in the form of footnotes.

72. During the review, Norway provided additional information on its target, including associated conditions and assumptions, and on its provision of financial, technological and capacity-building support to developing country Parties.

73. Norway's total GHG emissions excluding LULUCF for 2012 increased by 4.6 per cent from 50,409.35 kt CO_2 eq in 1990 to 52,733.24 kt CO_2 eq in 2012, whereas total GHG emissions including net emissions or removals from LULUCF decreased by 35.3 per cent over the same period from 40,262.41 kt CO_2 eq in 1990 to 26,055.57 kt CO_2 eq in 2012.

74. Emission increases were driven by growth in GDP and population, mainly owing to increasing emissions from energy industries (in particular, oil and gas extraction) by 102.9 per cent between 1990 and 2012 and transport (in particular, road traffic, civil aviation and coastal traffic/fishing) by 36.6 per cent between 1990 and 2012. These factors outweighed improvements in the efficiency of energy use and technological developments. In recent years, after a peak in 2007, total GHG emissions have decreased (by 5.8 per cent in 2012 compared to 2007).

75. Under the Convention, Norway made a commitment to reduce its GHG emissions by 30.0 per cent by 2020 compared to the 1990 levels. This target is consistent with, and will be operationalized through, Norway's commitment under the second commitment period of the Kyoto Protocol.

76. The target under the Convention defines 1990 as the base year for all gases (CO_2, CH_4, N_2O, HFCs, PFCs and SF_6) with the base year for NF_3 not yet decided. It covers the

following sectors: energy, transport, industrial processes, agriculture, LULUCF and waste. For all included gases, the GWP values from the IPCC Fourth Assessment Report are used. Norway's intention is to apply the Kyoto Protocol second commitment period accounting rules, including an activity-based approach for LULUCF, to its target under the Convention.

77. All currently available market-based mechanisms under the Convention may be used to meet Norway's target under the Convention, with future mechanisms to be considered once they have been agreed by the COP.

78. Total emissions in 2020 are projected to reach 54 800 kt CO_2 eq, a level that is 7.9 per cent above the 1990 level. Total emissions in 2030 are projected to reach 52 200 kt CO_2 eq, a level that is 3.6 per cent above the 1990 level.

79. Considering the projected emissions for 2020, the ERT noted that Norway might have to implement additional domestic PaMs, to use Kyoto Protocol mechanisms or to account for LULUCF activities to reach its target under the Convention of reducing its GHG emissions by 30.0 per cent by 2020 compared to 1990 levels.

80. In its BR1 and CTF tables 7, 8 and 9, Norway reported information on its provision of financial, technological and capacity-building support required under the Convention for 2011 and 2012. In 2011 Norway contributed climate-specific financial support to developing countries of around USD 207.1 million through multilateral channels and around USD 350.3 million through bilateral, regional and other channels. In 2012, Norway contributed climate-specific financial support to developing countries of around USD 337.7 million through multilateral channels and around USD 513.2 million through bilateral, regional and other channels. The ERT further noted that the budget for climate change mitigation and adaptation assistance has increased strongly over the past seven years and that the share of climate finance in the overall ODA budget increased from around 3 per cent in 2006 to around 18 per cent in 2012.

81. With regard to technology transfer and capacity-building support for developing country Parties, the ERT noted that both means of support form an integral part of Norway's support provided to developing countries and that it is therefore difficult to clearly separate this kind of support from other activities that are part of Norway's development cooperation.

82. In the course of the review, the ERT formulated several recommendations relating to the completeness and transparency of Norway's reporting under the Convention. The key recommendations[1] are that Norway:

(a) Improve the timeliness of its reporting by submitting its next BR and CTF tables on time, as required by the UNFCCC reporting guidelines on BRs (see para. 8 above);

(b) Improve the completeness of reporting by including in the next BR the following:

(i) Information on how Norway seeks to ensure that the resources it provides effectively address the needs of non-Annex I Parties with regard to climate change adaptation and mitigation (see para. 53 above);

(ii) Information on financial support provided, committed and or pledged for the purpose of assisting non-Annex I Parties to adapt to any economic and social consequences of response measures (see para. 54 above);

(c) Improve the transparency of reporting by including in the next BR the following:

[1] The recommendations are given in full in the relevant sections of this report.

(ii) More detailed information in textual and tabular formats on its target under the Convention, including associated conditions and assumptions (see para. 24 above);

(iii) Follow the UNFCCC reporting guidelines on BRs more closely and provide transparent and accurate textual and tabular information, also in the form of footnotes, on financial support to developing country Parties (see para. 56 above);

(iii) More detailed information on the tracking methodology, assumptions or indicators used for the financial support provided (see para. 58 above);

(iv) More detailed information on measures that will contribute to the technology benefits of non-Annex I Parties and on the support of the development and enhancement of endogenous capacities and technologies in non-Annex I Parties (see para. 67 above);

(v) More detailed information on how it has provided capacity-building support that responds to the emerging capacity needs of developing country Parties (see para. 69 above).

Annex

Documents and information used during the review

A. Reference documents

"UNFCCC biennial reporting guidelines for developed country Parties". Annex to decision 2/CP.17. Available at <http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf#page=4>.

"Guidelines for the technical review of information reported under the Convention related to greenhouse gas inventories, biennial reports and national communications by Parties included in Annex I to the Convention". Annex to decision 23/CP.19. Available at <http://unfccc.int/resource/docs/2013/cop19/eng/10a02.pdf#page=20>.

FCCC/ARR/2013/NOR. Report of the individual review of the annual submission of Norway submitted in 2013. Available at <http://unfccc.int/resource/docs/2014/arr/nor.pdf>.

FCCC/IDR.5/NOR. Report of the in-depth review of the fifth national communication of Norway. Available at <http://unfccc.int/resource/docs/2011/idr/nor05.pdf>.

Sixth national communication of Norway. Available at <http://unfccc.int/files/national_reports/biennial_reports_and_iar/submitted_biennial_reports/application/pdf/nor_nc6_br1.pdf>.

First biennial report of Norway. Available at <http://unfccc.int/files/national_reports/biennial_reports_and_iar/submitted_biennial_reports/application/pdf/nor_nc6_br1.pdf>.

Common tabular format tables of Norway. Available at <http://unfccc.int/files/national_reports/biennial_reports_and_iar/submitted_biennial_reports/application/pdf/nor_2014_v1.0_formatted.pdf>.

2013 GHG inventory submission of Norway. Available at <http://unfccc.int/files/national_reports/annex_i_ghg_inventories/national_inventories_submissions/application/zip/nor-2013-nir-12apr.zip>.

2014 GHG inventory submission of Norway. Available at <http://unfccc.int/files/national_reports/annex_i_ghg_inventories/national_inventories_submissions/application/zip/nor-2014-nir-10apr.zip>.

B. Additional information provided by the Party

Responses to questions during the review were received from Ms. Benedikte Wiig Sørensen (Ministry of Climate and Environment), including additional material on updated policies and measures, greenhouse gas projections, the national registry and recent climate policy developments in Norway. The following documents[1] were also provided by Norway:

Norwegian Ministry of Finance. 2009. *Long-term Perspectives for the Norwegian Economy*. White Paper. PM09. Oslo. Available at <https://www.regjeringen.no/globalassets/upload/fin/perspektiv_2009/engelsk_persp.pdf>.

[1] Reproduced as received from the Party.

Norwegian Ministry of Finance. 2013. *Long-term Perspectives on the Norwegian Economy 2013 – a Summary*. White Paper, PM13. Oslo. Available at <https://www.regjeringen.no/en/dokumenter/meld.-st.-12-2012-2013/id718050/?docId=STM201220130012000ENGPDFS&ch=1&q=&regj_oss=10&ref=search&term=>.

Norwegian Ministry of Finance. 2014. Prop. 1 S (2014–2015) *Proposisjon til Stortinget (forslag til statsbudsjett) FOR BUDSJETTÅRET 2015* (The Government's budget for 2015 establishes a foundation for reaching the Government's long term target for turning Norway into a low emissions society). Available at <https://www.regjeringen.no/nb/dokumenter/Prop-1-S-20142015-id2005477/?docId=PRP201420150000IGUIDDDFPDFS&ch=1&q=>.

Søgaard, Gunnhild, Rasmus Astrup, Clara Anton-Fernandez, Lise Dalsgaard, Signe Borgen og Nikolas von Lüpke. In print. *Framskrivninger for skog og andre landarealer* (LULUCF-sektoren) (Projections for forests and other land-use (the LULUCF-sector).

Klima- og forurensningsdirektoratet. 2010. *KLIMAKUR 2020 – TILTAK OG VIRKEMIDLER FOR Å NÅ NORSK KLIMAMÅL MOT 2020 – TA 2590/2010* (Climate Cure 2020). Oslo. Available at <http://www.miljodirektoratet.no/no/Tema/klima/Klimakur-2020>.

Ministry of Climate and Environment. April 2012. *Meld. St. 21 (2011 – 2012) Melding til Stortinget Norsk klimapolitikk*. Tilrading fra Miljøverndepartementet 25. April 2012, godkjent i statsråd samme dag. (Regjeringen Stoltenberg II) (New White Paper "Norwegian Climate Policy"). Oslo. Available at <https://www.regjeringen.no/nb/dokumenter/meld-st-21-2011-2012/id679374/>.

Ministry of Climate and Environment. June 2012. Innst. 390 S (2011–2012) *Innstilling til Stortinget fra energi- og miljøkomiteen om norsk Klimapolitikk Meld. St. 21 (2011–2012)* (Broad political agreement on climate change). Available at <https://www.stortinget.no/Global/pdf/Innstillinger/Stortinget/2011-2012/inns-201112-390.pdf>.

The Norwegian Government. 7 October 2013. *Political Platform for a Government formed by the Conservative Party and the Progress Party*. Sundvolden. Available at <https://www.regjeringen.no/contentassets/a93b067d9b604c5a82bd3b5590096474/politisk_platform_eng.pdf>.